

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. Chongying Xu ATMI - 515 2946 10/015,326 12/13/2001 01/19/2006 **EXAMINER** 25559 7590 ATMI, INC. MANOHARAN, VIRGINIA 7 COMMERCE DRIVE PAPER NUMBER ART UNIT DANBURY, CT 06810 1764

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)		
Office Action Summary		10/015,326	XU ET AL.		
		Examiner	Art Unit		
		Virginia Manoharan	1764		
Period fo	The MAILING DATE of this communication apports Reply	pears on the cover sheet with the c	orrespondence ac	idress	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
1)	Responsive to communication(s) filed on <u>17 N</u>	ovember 2005			
2a)□					
٠,۵	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Dispositi	on of Claims	, ,			
·					
•	Claim(s) <u>1,3-7,10-19 and 21</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.				
·	is) Claim(s) is/are allowed.				
	☑ Claim(s) <u>1,3-7,10-19 and 21</u> is/are rejected.				
	7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.				
ت (٥	claim(s) are subject to restriction and/o	r election requirement.			
Applicati	on Papers				
9)☐ The specification is objected to by the Examiner.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority u	nder 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:					
	1. Certified copies of the priority documents have been received.				
2. Certified copies of the priority documents have been received in Application No					
	3. Copies of the certified copies of the priority documents have been received in this National Stage				
* 0	application from the International Bureau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a list of the certified copies not received.					
Attachmeni	(e)				
	e of References Cited (PTO-892)	4) Interview Summary	(PTO-413)		
	e of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	te		
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other:					
rapei	- αροι (το(σ)/(viai) Date 0) [_] Other				

DETAILED ACTION

Claims 1, 3-7, 10-19 and 21 are rejected under 35 U.S.C. 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a). Claim 18, last two lines recites "..wherein said purified cyclosiloxane precursor comprises < 0.001% of the at least one impurily"; and further claim 19 recites, "wherein said purified cyclosiloxane precursor comprises < 0.00001 % of the at least one impurity...". However, the specification at page 8, fourth full paragraph describes that the ".. present invention is useful for removing water to levels in the range of from about 1 to 20 ppm and acidic impurities to levels in the range of from about 0.001 to 0.00001%". That is, the claimed < is not positively recited. The above "from about.." could read on ≥.
- b). The claimed "comprising" appears to be at odd and/or broadening the terms "consisting of " recited in the specification and original claims.

Claims 1, 3-7, 10-17 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Art Unit: 1764

- a). The claimed "wherein said purified cyclosiloxane precursor comprises less than 0.001% of water.." appears to be nowhere from the specification. [Compare the above recitation at page 8 wherein the .0001 % refers to levels in range of the "acidic impurities..", not water. The water levels in range is from about 1 to 20 ppm. Note further page 14, third full paragraph, reciting "a cyclic siloxane having water levels in the range of from about 1 to 50 ppm, more preferably in a range of from 1 to 20 ppm and most preferably in a range of from 1 to 10 ppm.
- b). The claimed ".. wherein the water content is less than 20 ppm.." in claim 1. The "less than 20 ppm" can include e.g., only .001 ppm which is not contemplated by the claimed invention.
- c). The combination of adsorbents recited in claim 13.

However, if support can be pointed —out, at least the specification fails to provide proper antecedent basis for the above claimed subject matter, as they are not positively recited in the specification. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Claims 1, 3-7, 10-19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a). The combination of adsorbents in claim 13 appears to broaden the non-combination materials included in the Markush grouping of claim 10, the claim from which it depends.
- b). The preambles of claims 18, 19 and 21 all recite "A process for improving delivery reproducibility of a cyclosiloxane precursor to a chemical vapor deposition reactor by

Application/Control Number: 10/015,326

Art Unit: 1764

reducing water content in the cyclosiloxane precursor, the process comprising the steps of:", however, the bodies of these do not mention the above ".. delivery reproducibilityby reducing water content.."

c). Claims 18 –19 and 21 do not substantially differ with one another as required under CFR 1.75 (b). The difference seen is in the "wherein" clause recited in each claims. However said difference is not a recitation of any manipulative method steps to which the claims are directed.

Claims 1, 3-7, 10-19 and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Henderson et al discloses a method for purifying polyalkylsiloxanes and the resulting products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MICHA MAN ALLANDA PRIMATIVITY 1764 1/17/06